

AMCO Chemical Superfund Site Community Advisory Group (CAG) Meeting Notes from the July 20, 2009 Meeting

EPA Attendees: Leana Rosetti, Community Involvement Coordinator
 Rose Marie Caraway, Remedial Project Manager
 Steve Calanog, Emergency Removal Program
 Lynn Suer, Section Chief
 Rykiel Robinson, Summer Intern

EPA Contractors: Roy Herzig, ITSI Project Manager
 Vibhav Mankad, CDM, Engineer
 Yash Nyznyk, CDM Project Manager

CAG Members: Brian Beveridge
 Angie May
 Eileen Parkinson
 Lisa Spearman
 Jabarie Herbert
 Janice Edwards
 Phoebe Rossitu
 John Schweizer, TAG Advisor
 Marisa Ideta, Green Action

The notes below are organized by commenter in chronological order.

EPA Presentation and Comments

Feasibility Study – Technologies

- EPA presented the first 23 slides of the *Feasibility Study, Overview of Remedial Technologies Evaluations* presentation, which covered the NAPL remedial technologies.
- EPA described the four chemicals on slide 3 as the “driving chemicals” for risk assessment, which is why they were included in the presentation.
- EPA explained that naphthalene got into the soil, because it was used by AMCO Chemical to manufacture other chemicals.
- At slide #6, EPA defined NAPL as a Non-aqueous Phase Liquid. The NAPL at the Site consists of a number of different chemicals. The NAPL floats as free product on top of the groundwater, and is also adsorbed to soil particles. Until removal, the NAPL continuously releases chemical contaminants into the groundwater, serving as an ongoing source of contamination.

- At slide #7, EPA explained that there are a number of layers of concrete that have been constructed at the Site over time. Chemical piping and free product have been observed between the different layers of concrete, and may serve as an ongoing source of chemical release to the environment. EPA said that excavating the layers of concrete (and material buried within it) may remove a source of contamination that has not been quantified or identified to date.
- At slide #8, EPA explained why and how resident relocation during cleanup activities will be considered in the decision documents. EPA is evaluating the need to relocate the three residents that live closest to the AMCO Superfund Site. One of the three residents sleeps during the day and regrets turning down a relocation offer in the past during an emergency response activity. Relocation will be evaluated as component of the remedial alternatives. EPA will not decide whether to relocate residents until the remedial design phase and the residents have been consulted.
- EPA could not answer the community's questions regarding how contaminated soil and groundwater will be removed from the Site, because it depends on the remedial alternative selected. There was a discussion on whether soil removal could include removal by trucks or a railcar. Those decisions would be made at the end of the design phase or when EPA goes through the process of choosing the contractor just prior to construction. EPA reassured the community that they would be made aware and allowed to comment on the procedure. EPA would also answer questions regarding work start and stop times and truck routes prior to the start of construction. If the CAG is still meeting, EPA will discuss these issues with the CAG prior to start of construction, which is still estimated to be a couple of years in the future.
- From slide #11 to #15, EPA described Thermal Treatment as a potential option for cleaning up groundwater and soil.
 - Thermal treatment has been successful at a number of other sites(private cleanups and EPA sites), and is effective in addressing a range of chemical types and concentrations.
 - Thermal treatment involves heating the soil and groundwater to the point of vaporization of chemicals. One of the vapor treatment alternatives being considered as part of a thermal treatment alternative for the AMCO Site is the C3 technology (cryogenic-cooling and compression). This involves extraction of vapors, cooling, and condensation into liquid form. The condensed liquids are either reused, recycled, or sent off-site for disposal. The 3C process is very energy intensive but has been demonstrated to be very effective, preventing chemical emissions into the air. A major advantage is that it eliminates the ongoing source of contamination—the mixture of chemicals that are found in the NAPL at the Site.
 - Thermal treatment is expected to be much faster than traditional groundwater pump-and-treat methods (which could last as long as 30 years).
 - EPA mentioned that they could follow up thermal treatment with other remedies if needed to address residual levels of contamination that may remain following thermal treatment.
 - As the thermally treated soil and groundwater begins to cool, the conditions for bioremediation improve, allowing naturally-occurring microbes to degrade residual contamination in soils and groundwater.
- When asked by the public how contaminant vapor would be controlled during Thermal Treatment, EPA said they could implement the following measures.
 - Install vapor extraction wells adjacent to the property boundaries near residences.
 - Monitor ambient air quality during the construction activities.

- On another EPA project the heating (boiling) occurred far below the surface at approximately 35 feet deep. The depth made it easier to prevent vapors from escaping.
- Install vapor extraction wells with overlapping zones of influence among the heating electrodes. to immediately capture vapors.
- EPA can constantly track and monitor (from the office) temperature, pressure readings and other parameters in real-time from field instruments. In addition, samples are typically collected of vapors entering the vapor treatment system.
- At slide #16, an EPA contractor from CDM presented the 3C Technology for treatment of the contaminated vapors collected from the site. Chemicals that are collected can often be reused/recycled or sent off-site for treatment .
- When the public asked why it takes so long to clean up groundwater, EPA provided the following explanations.
 - If pump-and-treat methods are used, it can take years to clean-up groundwater due to the amount of chemicals dissolved in the groundwater. This method also does not address NAPL that is in the soil and subsurface environment.
 - When volatile organic compounds are released into the subsurface, they adsorb to soil particles serving as an ongoing source of contamination into the groundwater.
- When asked if it is possible to completely remove contamination, EPA said it is possible to lower the levels of the contaminants to the degree that they may not be harmful to the community (below screening levels).
- EPA responded to a question regarding community confidence in the cleanliness of the soil and groundwater after the remediation saying that they will consistently test ambient air, soil, vapor, water, etc. EPA performs these tests more frequently at the beginning when they turn on a treatment system and decrease this testing over time, as appropriate.
- At slide #20, EPA described In-Situ Chemical Oxidation technology. EPA pointed out the focus on “in-situ” remedies. The intent is to minimize impact to the residential community.
- At slide #21, EPA briefly discussed the reasons they did not retain capping for more detailed analysis:
 - Capping involves placement of an impermeable cap over areas of contamination. The objective is to prevent infiltration of runoff through impacted soil and subsequent migration into groundwater.
 - EPA and the community are in agreement that capping is not an option for the AMCO Superfund Site.
- At slide #22, EPA briefly discussed the reasons they did not chose to retain stabilization/fixation as a technology for more detailed analysis.
 - Stabilization/Fixation involves sstabilization or chemically fixing in-place contaminants in the vadose and saturated zones. This is accomplished using low permeability material like clay. The objective is to reduce the mobility of the contaminants.
 - Since contaminants remain in place using this technology, EPA chose not to retain it.
- EPA and the community decided to continue discussing the soil technology options at the next CAG meeting.
- Steve Calanog, On-Scene Coordinator from the removal program attended the meeting. The CAG group discussed their proposal to write a letter to Congresswoman Barbara Lee regarding incorporating a lead investigation of the surrounding area into the Superfund site activities. There was discussion among CAG members.
- EPA’s response to John Schweizer’s (TAG advisor) concerns regarding lead in on-site and off-site soils were as follows:

- It would be less time efficient to expand the AMCO Superfund Site boundaries to include areas with high lead contamination, as opposed to addressing it as an emergency removal response.
- Since the lead in off-site soil is not co-mingled with the AMCO contaminants, EPA would address these contaminants separately, rather than incorporating them into the existing Superfund Site.
- EPA is discussing the possibility of performing a separate lead investigation (under the removal program) on off-site soils. The area of investigation under consideration is from Center Street to Peralta Street and up to 7th Street, which would not be part of the AMCO Superfund Site.
- EPA representatives said that they are presenting this possibility to EPA management and would keep the community informed. An update would be provided at the next CAG meeting.

Other

- EPA suggested that the public always e-mail or call with questions before CAG meetings.

Public Comments

General Questions asked during the meeting

- How did naphthalene get into the soil?
- The public wants to be involved in the decision making process regarding the contaminated soil and groundwater removal.
 - How will excavated materials be removed from the site?
 - How will dust be controlled to prevent exposure of contaminants to the community?
 - If the excavated materials will be removed by truck, what route will be taken?
- At slide #11, the public requested that EPA convert degrees Celsius into Fahrenheit, because the public is most familiar with degrees Fahrenheit.
- After EPA discussed Thermal Treatment, the public had a number of questions regarding vapor control.
 - When boiling contaminants, how do you know if vapors escape?
- Why does it take so long to clean up groundwater?
- Can you ever completely remove the contamination?
- How does EPA know (restore community confidence) that the soil and groundwater is actually clean?
- A community member mentioned that the South Prescott Park's level of lead contamination is still in question.
- The public wanted to make sure they will still be informed and involved in the separate lead investigation in their neighborhood.

Community Advisory Group Requests

- August 10, 2009 6:30 – 8:30
CAG Meeting Agenda
 1. Cleanup technologies – continue with soil
 2. Update on separate lead investigation
 3. EPA's Nine criteria evaluation
 4. Other Criteria expressed as concerns by the community

- Effectiveness
- Sustainability – permanence
- Operations impact on residents/quality of life
- Impact on land reuse
- Etc.

Tentatively scheduled a CAG meeting on August 31 from 6:30 – 8:30 in the same location.
Decided to hold CAG meetings every three weeks.

Technical Advisor Comments

- Five out of six houses on the east side of Center Street underwent an emergency lead removal in the past.
- Various depths of soil were removed and replaced due to high levels of lead.
- John Schweitzer had suggested in the past that the AMCO Superfund Site boundaries should be expanded to include areas near the old foundry, where the Remedial Investigation showed levels of 5% lead in the soil.
- Foundry dust looks like dirt and could have easily been used to level the area historically.
- Even though the lead contamination may not have come from AMCO Chemical, John wants EPA to help test for and deal with the lead contamination issue in the area.

Green Action Comments

None